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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,682	10/12/2004	Kazushi Sato	257947US6PCT	3861
22850 7590 09/03/2009 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
HOLDER, ANNER N				
ART UNIT		PAPER NUMBER		
2621				
NOTIFICATION DATE		DELIVERY MODE		
09/03/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

Application No.

10/509,682

Applicant(s)

SATO ET AL.

Examiner

ANNER HOLDER

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05/14/09.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 1-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 25-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Arguments***

1. In view of the appeal brief filed on 05/14/09, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/Mehrdad Dastouri/

Supervisory Patent Examiner, Art Unit 2621.

2. Applicant's arguments filed 05/14/09 have been fully considered but they are not persuasive. Regarding arguments the Examiner respectfully disagrees. Eifrig teaches the sum of absolute differences using the neighboring blocks, [fig. 6; col. 10 lines 39 - col. 11 line 39] which reads upon the limitation as claimed. Eifrig discloses adaptive motion estimation which implies field frame encoding depending on the necessary

function. [col. 10 lines 30-40] Field and frame based motion estimation is disclosed, see col. 7 lines 55-67; fig. 3; fig. 6, if necessary the system switches between field and frame based motion estimation. The encoding of horizontal and vertical motion vector components is also disclosed. [col. 2 lines 25-52] Kadono teaches field frame conversion through adaptive coding. [abstract; figs. 1-6; col. 29 line 25 - col. 30 line 29 (emphasis col. 29 lines 45-49, col. 30 lines 8-13); col. 31 line 11 - col. 32 line 60] Eifrig taken in combination with Kadono fairly suggests and teaches the limitations as claimed. The conversation of field/frame in Kadono combined with the teachings of Eifrig allows for the neighboring block which is adaptively coded as field/frame to be used and converted to frame/field depending upon what is needed for the coding process.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eifrig et al. (Eifrig) US 6,005,980 in view of Kadono US 6,272,179 B1.

5. As to claim 25, Eifrig teaches a first generation step of generating a context model corresponding to a frame/field flag indicating whether the encoding processing at the macroblock level is field-based or frame-based; [abstract; fig. 6; col. 10 lines 30-60;

col. 20 lines 31-49] second generation step of generating a context model corresponding to a syntax element for carrying out the frame-based or the field-based encoding processing, [abstract; fig. 6; col. 10 lines 30-60; col. 20 lines 31-49; col. 22 lines 12-15] wherein the context model corresponding to motion vector information of a current macroblock is generated based on a sum of an absolute value of motion vector information of macroblocks neighboring the current macroblock, [fig. 6; col. 10 lines 39 - col. 11 line 39] and an encoding step of carrying out the encoding processing using the context model corresponding to the motion vector information of the current macroblock generated in the second generation step. [figs. 1-2; col. 5 lines 30-57; col. 6 lines 32-55]

Eifrig is silent as to if the current macroblock is subjected to the field- based encoding and a neighboring macroblock is subjected to frame-based encoding, the motion vector information corresponding to the neighboring macroblock is calculated by converting the vertical component of the motion vector information corresponding to the neighboring macroblock to the equivalent for field-based encoding and is applied to the context model corresponding to the motion vector information of the current macroblock.

Kadono teaches if the current macroblock is subjected to the field- based encoding and a neighboring macroblock is subjected to frame-based encoding, the motion vector information corresponding to the neighboring macroblock is calculated by converting the vertical component of the motion vector information corresponding to the neighboring macroblock to the equivalent for field-based encoding and is applied to the context model corresponding to the motion vector information of the current macroblock. [abstract; figs. 1-6; col. 29 line 25 - col. 30 line 29; col. 31 line 11 - col. 32 line 60]

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Kadono with the device of Eifrig allowing for improved coding efficiency and image quality.

6. As to claim 26, see discussion of claim 25 above.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANNER HOLDER whose telephone number is (571)270-1549. The examiner can normally be reached on M-Th, M-F 8 am - 3 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anner Holder/  
Examiner, Art Unit 2621

/Tung Vo/  
Primary Examiner, Art Unit 2621